



IN THE CLAIMS:

Please amend the Claims so as to read as follows:

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1. (As originally filed) An optical disk including data segments, for recording data, provided in each sector in a recording track, wherein
at least some of the data segments each include:
a clock mark field for recording a clock mark from which a clock signal is obtained; and
a synchronization field for recording a synchronization pattern with which displacement of the data is corrected.
 2. (As originally filed) The optical disk as set forth in claim 1, wherein the at least some of the data segments including a synchronization field are provided at regular intervals in each sector.
 3. (As originally filed) The optical disk as set forth in claim 1, wherein the synchronization field has a fixed position in each of the data segments.

4. (As originally filed) The optical disk as set forth in claim 1, wherein
one of the data segments, located at a head of each sector, records a
header pattern for matching the clock signal and the data in phase.
5. (As originally filed) The optical disk as set forth in claim 1, wherein
the data segments each include a pre-write field and a post-write field for
offsetting displacement of the data that occurs when the data is
recorded.
6. (Amended) An optical disk with a recording track constituted by sectors
arranged in a concentric or spiral form, in which data is rewritable
sector by sector, wherein
each of the sectors is divided into segments,
each of the segments includes a data field for recording data and a
clock field having a different light reflectance from that of the data
field, and
the data field includes fields for recording a synchronization
pattern with which displacement of the data is corrected.

7. (As originally filed) The optical disk as defined in claim 6, wherein
each of the sectors includes at least one address segment
where address information is located and data segments for
recording data,
the address segment is located at a head of the sector,
a first data segment immediately subsequent to the address
segment includes a field for recording a phase-introducing header
pattern for use in data reproduction, and
the fields for recording the synchronization pattern are
included at regular intervals in a second data segment
immediately subsequent to the first data segment and data
segments subsequent to the second data segment.

8. (As originally filed) An optical reproduction device for reproducing data

recorded in data segments provided in each sector in a recording track of an optical disk, said optical reproduction device comprising:

a clock generation circuit for generating a clock signal

from a clock mark recorded in a clock mark field provided in the data segments; and

a data rearrangement circuit for detecting a

synchronization pattern recorded in a synchronization field provided in at least some of the data segments to correct displacement of the data according to the detected synchronization pattern.

9. (As originally filed) The optical reproduction device as set forth in claim 8,

wherein

the data rearrangement circuit detects the synchronization pattern in each sector of the optical disk at regular intervals.

10. (As originally filed) The optical reproduction device as set forth in claim 8,
wherein

the data rearrangement circuit includes a window circuit for
detecting the synchronization pattern only in proximity to the
synchronization field.

11. (Amended) The optical reproduction device as set forth in claim 8,

further comprising :

a phase adjusting circuit for matching the data and the clock
signal in phase using a header pattern recorded in one of the data
segments located at a head of each sector of the optical disk.

12. (Amended) An optical reproduction device for reproducing data from an optical disk with a recording track constituted by sectors arranged in a concentric or spiral form, in which data is rewritable sector by sector, wherein

each of the sectors is divided into segments, each of the segments includes data fields for recording data and a clock field having a different light reflectance from that of the data fields, and the data fields record synchronization patterns,

said optical reproduction device comprising:

clock generation means for detecting a laser reflected at the clock field as a clock field signal and generating a clock for use in data reproduction according to the clock field signal;

synchronization pattern detection means for detecting the synchronization pattern recorded in the data fields;

reproduction means for reproducing sector by sector using the clock generated by the clock generation means and correcting displacement of data in the sector according to a result of the detection of the synchronization pattern.

13. (As originally filed) The optical reproduction device as set forth in claim 12,

wherein

the synchronization pattern detection means includes window means for detecting the synchronization pattern only in a predetermined part in the data fields.

14. (As originally filed) An optical recording device for recording data in data segments provided in each sector in a recording track of an optical disk, said optical recording device comprising:

a clock generation circuit for generating a clock signal for use in recording of the data; and

a synchronization pattern addition circuit for adding a synchronization pattern for correcting displacement of the data to data recorded in at least some of the data segments.

15. (As originally filed) The optical recording device as set forth in claim 14,

wherein

the synchronization pattern addition circuit adds the synchronization pattern to the data recorded in the data segments provided at regular intervals in each sector of the optical disk.

16. (As originally filed) The optical recording device as set forth in claim 14,

wherein

the synchronization pattern addition circuit adds the synchronization pattern so that the synchronization pattern is recorded at a fixed position in each data segment.

17. (Amended) An optical recording device for recording data on an optical disk with a recording track constituted by sectors arranged in a concentric or spiral form, in which data is rewritable sector by sector, wherein

each of the sectors is divided into segments, and each of the segments includes a data field for recording data and a clock field having a different light reflectance from that of the data field,

the optical recording device comprising:

clock generation means for detecting a laser reflected at the clock field as a clock field signal and generating a clock for use in data recording according to the clock field signal; and

recording means for recording synchronization patterns for correcting displacement of data, together with recording data, in each data field using the clock at a predetermined cycle.

18. (New Claim) The optical reproduction apparatus as set forth in claim 8, wherein

the data rearrangement circuit rearranges the positions of the data by detecting the synchronization pattern, so that reproduced data is divided into 1-byte subsets of data at standard positions.

19. (New Claim) The optical reproduction apparatus as set forth in claim 12,
wherein

the reproduction means corrects displacement of data by
detecting the synchronization pattern, so that reproduced
data is divided into 1-byte subsets of data at standard
positions.
